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ABSTRACT

This is the final report of a project designed to determine contributions of specific socio-economic and self concept factors to success or failure of students, by sex, in an Adult Basic Education program. More specifically, an attempt was made to answer the following question: Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of objective measures of socio-economic and self concept. The selection of study individuals was conducted, first by random sampling of all adults who enrolled and sequentially participated in the General Educational Development Test in the Hickman High School Adult Basic Education program, Columbia, Missouri. This random sample was then stratified into four different groups according to success and sex. The study analyzes the relationship of socio-economic status and self concept to success and sex in Adult Basic Education. The two instruments used were the National Opinion Research Center Socio-economic Scale and the Tennessee Self Concept Scale. Multiple discriminant analysis, intercorrelation among the different variables, and one way analysis of variance were used to analyze the data so that those variables which indicate academic success may serve to help in the preparation of teachers whose task is to teach adults. (Author/CJ)

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FINAL REPORT

Grant No. OEG-7-72-0029(509)

AN ANALYSIS OF THE RELATIONSHIP OF SOCIO-ECONOMIC STATUS AND SELF CONCEPT TO SUCCESS AND SEX IN ADULT BASIC EDUCATION PROGRAMS

Project Director: Frank Heagerty

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February, 1974

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PROPOSAL FOR RESEARCH AND/OR RELATED ACTIVITIES
SUBMITTED TO THE U.S. COMMISSIONER OF EDUCATION
FOR SUPPORT THROUGH AUTHORIZATION
OF THE BUREAU OF RESEARCH

Title: A Multivariate Analysis of the Relationship of Socio-economic Status and Self Concept to Success and Sex in Adult Basic Education Programs

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ABSTRACT

Title of Project:	A Multivariate Analysis of the Relationship of Socio-Economic Status and Self Concept to Success and Sex in Adult Basic Education
Principal Investigator:	Thomas H. Hill
Contracting Agency:	The Curators of the University of Missouri-Columbia
Federal Funds:	$6,440.00
Proposed Dates:	Beginning: June 1, 1972 Ending:

Problem: The purpose of this study is to determine contributions of specific socio-economic and self concept factors to success or failure of students, by sex, in an Adult Basic Education program. More specifically, an attempt will be made to answer the following question: Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of objective measures of socio-economic and self concept.

Significance to Education: The value of education in a democratic society goes without question. However, recent census figures reveal rather startling information. According to a 1969 Bureau of Census report, about six million adults or 5.6 percent of the total population had not completed five years of formal schooling and forty-six percent are not high school graduates. A 1960 census report revealed that over fifty percent of individuals receiving welfare are functionally illiterate. The dropout rate in Adult Basic Education programs is approximately forty percent.

In light of the above information, it is important to have an improved understanding of characteristics of adults who were successful in academic work as compared to those who were not, so that we would be better enabled to prepare student teachers for the task of teaching adults.

Research Procedures: The selection of individuals will be conducted, first by random sampling of all adults who enrolled and sequentially participated in the General Educational Development Test in Hickman High School Adult Basic Education program, Columbia, Missouri. This random sample will then be stratified into four different groups according to success and sex. The study will analyze the relationship of socio-economic status and self concept to success and sex in Adult Basic Education. The two instruments to be used are the National Opinion Research Center Socio-economic Scale and the Tennessee Self Concept Scale. Multiple discriminant analysis, intercorrelation among the different variables and one way analysis of variance will be used to analyze the data.

I. THE PROBLEM

Statement of the Problem: The purpose of this study is to determine contributions of specific socio-economic and self concept factors to success or failure of students, by sex, in an Adult Basic Education program. The socio-economic factor employed in this study is socio-economic status; and the self concept factors are self criticism, self esteem and sense of adequacy and worth.

More specifically, the problem of this study may be considered as an attempt to answer the following questions:

1. Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of an objective measure of socio-economic status?

2. Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of objective measures of self concept?

II. SIGNIFICANCE OF THE PROBLEM

The value of continual education in a democratic society goes without question. The area of concern is how can all individuals realize their fullest potential. At a time when change is making a complex techological society, the importance of education is magnified.

The understanding of characteristics of adults who were successful in academic work as compared to those who were not, should enable us to prepare more adequately for the task of teaching adults. This is especially true of the subjects of this study, adults who have acquired most or a significant

portion of their education outside formal school settings. The students who are overly critical of themselves may tend to view themselves as inadequate in an academic setting. Those who approach life in unrealistic ways may have unsuccessful methods of study and work. Thus a knowledge of an individuals self concept is useful to a teacher in helping that individual improve his chances for success in academic pursuits. If, indeed, there is a significant relationship between a positive self concept and success, teachers of adults should devote a portion of their class time to improvement of the individual's own perceived image.

III. RESEARCH PROCEDURES

Sample. The population will consist of all adults, approximately seventy-five, who enrolled and sequentially participated in the General Educational Development Test in Hickman Adult Basic Education Program, Columbia, Missouri, since its inception in 1966. Adult Basic Education is an integral part of the overall Adult Education program at Hickman High School and has served the central Missouri area in a comprehensive manner. The sample for this study will first be obtained by random sampling the population and then will be stratified into four different groups according to success and sex. The sample will consist of forty students (Nunnally, p. 355).

Instrumentation. The two instruments to be used in the study are the National Opinion Research Center (NORC) Socio-economic scale and the Tennessee Self Concept Scale. To measure

socio-economic status, the NORC socio-economic scale, created by Otis Dudley Duncan in 1947 and consisting of ninety selected occupations, will be administered. This scale yields one score. The nature of this scale can be found in Reiss (1961). The Tennessee Self Concept Scale consists of 100 self descriptive statements which the subject uses to portray his own picture of himself. Three sub-tests of the scale were chosen as having the most significance for this study. (1) The Self Criticism Score--This scale is composed of ten items that are all mildly derrogatory statements. High scores indicate a normal capacity for self criticism while low scores indicate defensiveness. (2) The Total Positive Score--This is the most important single score and reflects the overall level of self esteem. (3) Social Self--This is "self as perceived in relation to others" and reflects the person's sense of adequacy and worth in his social interaction with other people.

Statistical Analysis. Multiple discriminant analysis will be used to analyze the data. (William W. Cooley, 1962). In addition to the multiple discriminant analysis, inter-correlation among the different variables and one way analysis of variance will be computed. The data will be collected during mid 1972.

IV. RELATED REFERENCES

Many studies have been conducted in the area of persistence and motivational factors in adult education. Irwin R. Jahns (1970, p. 215), writing in Adult Basic Education: The State of the Art relates that "no efforts have been directed toward

exploring the social and economic benefits that accrue from participation in Adult Basic Education." In light of this statement, it appears that research is needed in this area.

Caplin (1969, pp. 13-16), in a study of the relationship between self concept and academic achievement found that a higher self concept may contribute to higher achievement and higher achievement in turn may contribute to a higher self concept.

Trowbridge (1970, pp. 304-306), conducted a study on the effects of socio-economic class on self concept of children. While investigating the effectiveness of a teacher training program designed to humanize the classroom some unexpected results were found concerning the self concepts held by children of different socio-economic groups. Two hypotheses suggested from this study are: (1) the teacher with a high self concept somehow transfers this self concept to his students and (2) this transfer generates a feeling of greater self worth in the students. Children of low socio-economic class, culturally disadvantaged consistently had a more positive self concept than did children of advantaged areas.

Brookover, Erickson and Joiner (1967, pp. 392-400), found a positive relationship between self concept and academic achievement.

V. DISTRIBUTION AND USE TO BE MADE OF FINDINGS

The proper utilization of the findings from this study will be an added strong point of the entire project. As mentioned earlier in the project, no record was found of any formal study

of this nature which deals with the problem of self concept and socio-economic benefits accruing from participation in adult basic education. If the major questions of this study can be supported, the impact should be significant and should set the stage for numerous other facets of research study in this area.

Dissemination of the summary of the findings, conclusions and recommendations of this study will be:

1. Made available as an unpublished doctoral dissertation in the University of Missouri-Columbia General Library
2. Microfilmed and accessible through this medium at the University of Missouri-Columbia General Library
3. Written and submitted for journal publication
4. Presented as a research paper at appropriate professional meetings

VI. ANALYSIS OF THE DATA

The original intent of this research project was to utilize multiple discriminant analysis in analyzing the data. However, the resultant lack of adequate number of subjects, minimum of ten per cell as required by multiple discriminant analysis, necessitated the use of the analysis of variance and the chi-square test.

The population consisted of the 52 adults who enrolled and participated in the General Educational Development Test in Hickman Adult Basic Education Program, Columbia, Missouri, since its inception in 1966. The sample consisted of the thirty-seven persons who willingly participated in this study.

The purpose of this study was an attempt to answer the questions referred to in Section I of the proposal.

Problem I

Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of an objective measure of socio-economic status?

Table I

Summary of Analysis of Variance for Differences Between Means for Socio-economic Status and Success

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	"F" VALUE	.05 LIMIT
Between	3	1008.435	366.145	5.663*	2.90
Within	33	1958.754	59.356		
	36	2967.189			

*Significant at the .05 level of confidence

The F ratio resulting from the analysis of variance was 5 663 which was statistically significant at the .05 level of confidence. Analysis of variance among socio-economic status and success is shown in Table I. According to the data in Table I, it would appear that those who are involved in Adult Basic Education programs should be cognizant of the possibility that low socio-economic status individuals have a statistically significant tendency toward failure on the General Education Development Test.

Table II

Means and Standard Deviations for Socio-Economic Status and Success

TYPE OF SUBJECT	MEAN	STANDARD DEVIATION	NUMBER
Male Pass	64.500	6.360	8
Male Fail	52.500	4.153	4
Female Pass	63.368	7.253	19
Female Fail	51.667	9.700	6
Grand	58.009	6.866	9.250

The data in Table II disclose that the male pass mean of 64.500 and the male fail mean of 52.500 was only slightly greater than the female pass mean of 63.368 and female fail mean of 51.667, respectively. The real significant difference appears to lie in the mean differences between success rather than sex.

Problem II

Is it possible to differentiate among groups of Adult Basic Education students classified by success and sex on the basis of objective measures of self concept?

Table III

Summary of Analysis of Variance for Differences Between Means for Self Criticism and Success

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	"F" VALUE	.05 LIMIT
Between	3	429.573	143.191	7.347	2.90
Within	39	643.129	19.489		
Total	43	1072.702			

*Significant at the .05 level of confidence

The F ratio of 7.347 was statistically significant. Analysis of variance among the self criticism portion of the total self concept and success is shown in Table III. Those individuals with a high self criticism score would appear to have a normal capacity for self criticism, and based on the data as revealed in Table III, are successful in the G.E.D. Test Individuals with low scores have a tendency toward defensiveness and failure on the G.E.D. Test.

Table IV

Means and Standard Deviations for

Self Criticism and Success

Type of Subject	Mean	Standard Deviation	Number
Male Pass	41.125	3.951	8
Male Fail	29.500	4.557	4
Female Pass	35.368	4.391	19
Female Fail	33.167	3.387	6
Grand	34.790	4.072	9.250

The significant difference between the means of the subjects who passed and those who failed is illustrated in Table IV. This indicates that a positive self criticism attitude is a factor in achieving success on the G.E.D. Test.

Table V

Summary of Analysis of Variances for Differences

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARES	"F" VALUE	.05 LIMIT
Between	3	7074.827	2358.275	1.926	2.90
Within	33	40415.498	1224.712		
	36	47490.325			

Data in Table V indicates that there is no significant difference between the individuals positive score and success on the G.E.D. Test. The positive score indicates a feeling of personal value worth which is reflected in positive behavior.

Table VI

Mean and Standard Deviation

For Positive Score and Success

TYPE OF SUBJECT	MEAN	STANDARD DEVIATION	NUMBER
Male Pass	337.625	11.187	8
Male Fail	332.500	21.789	4
Female Pass	352.895	36.208	19
Female Fail	346.833	24.100	6
Grand	337.463	23.34	9.250

The analysis of the data in Table VI revealed a lack of significant evidence of a relationship between an individual's feeling of value and worth and success on the C.E.D. Test.

Table VII

Summary of Analysis of Variances for Differences

Between Means for Social Self and Success

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARES	"F" VALUE	.05 Limit
Between	3	208.716	69.572	1.158	2.90
Within	33	1982.257	60.068		
	36	2190.973			

The lack of a significant difference in Table VII reflects the individual's feelings of adequacy as it relates to success.

Table VIII

Means and Standard Deviations for Social Self and Success

TYPE OF SUBJECT	MEAN	STANDARD DEVIATION	NUMBER
Male Pass	66.875	8.198	8
Male Fail	62.750	2.548	4
Female Pass	70.421	7.184	19
Female Fail	71.000	7.379	6
Grand	68.810	6.974	9.250

The data shown in Tables VII and VIII point out a consistent lack of a relationship between the social self and success on the G. E. D. Test.

Table IX

Chi Square Value for Independance of Sex and Outcomes Of Success or Failure on G.E.D Test

	PASS	FAIL	TOTAL
MALE	8	4	12
FEMALE	19	6	25
TOTAL	27	10	37

Chi Square value of .013 is not significant at the .05 level.

Conclusions

Within the limitations of this study and in view of the above analysis of the data, the following conclusions were warranted:

(1) The adults with high socio-economic status tend to realize a greater degree of success in the G.E.D. Test.

(2) Of the three facets of self concept only self criticism showed a significant relationship to success indicating that healthy openness and capacity for self criticism were contributing elements.

Recommendations

During the research for this study, certain problems and questions were raised which appear to warrant further investigation: Among these problems, the following seem to have special significance:

(1) A more detailed study of the various self concept factors in relationship to success in Adult Basic Education

(2) A study designed to measure teachers' and administrators' awareness of the importance of socio-economic status and self concept in Adult Basic Education students

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